

Claims

1. A frozen food product comprising AFPs, said product having an average ice crystal size of 0.01 to 20 micrometer, wherein said crystal size is maintained between 0.01 and 20 micrometer upon storage for 3 weeks at -10°C.
2. A frozen food product according to claim 1 wherein the average ice crystal size after 3 weeks at -10°C is from 0.01 to 10 micrometer.
3. A frozen food product according to claim 1 ~~or 2~~ being a particulate food product.
4. A frozen food product according to claim 1 ~~or 2~~ being a non-particulate food product.
5. A frozen food product according to ~~any preceding claim~~ *claim 1*, wherein the frozen food product is a frozen confectionery product.
6. A product according to ~~any preceding claim~~ *claim 1*, wherein the product comprises 0.0001 to 0.5 wt% of AFP.
25. *25 B* 7. A process for the manufacture of a frozen food product comprising AFPs, wherein the process comprises one or more of the following steps;
- (i) a (pre-)freezing step which is a nucleation dominated freezing step;
- (ii) a (post-)compaction step using a screw extruder or a compactor.

8. A process according to claim 7 wherein in step (i) the product is frozen to a temperature of -5°C or lower within 30 seconds.

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9. A process according to claim 7 wherein in step (i) the product is frozen to a temperature of -5°C or lower in 1 to 15 seconds.

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10. A process according to ~~any one of claims 7 to 9~~, wherein step (i) involves one or more of:

(a) surface freezing, preferably film freezing, onto a cold surface;

(b) freezing of a supercooled system;

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(c) decompression freezing;

(d) freezing at very low temperatures;

~~(e) rapid particulate freezing, preferably condensation freezing.~~

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11. A process according to ~~any one of claims 7 to 10~~, wherein step (i) involves drum freezing of the product.

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12. A process according to claim ~~7~~, wherein in step (ii) a screw extruder is used.

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13. A process according to claim 12, wherein in step (ii) the extrusion temperature of the frozen food product is less than -8 °C.

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14. A process according to claim 7, whereby step (ii) is included and the product is not subjected to a hardening step.

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